

Amendments to the Specification:

Please replace the second full paragraph on page 8 with the following amended paragraph:

The thin-slab guided-wave structure comprising an array of apertures can also be used as a pinhole-array beam-splitter when total internal reflection is used to guide light in the thin-slab guided-wave structure in lieu of a conducting cladding. As a consequence of the use of total internal refraction, there can be a high transmission coefficient for beams through the thin-slab guided-wave structure that have angles of incidence on the guided wave structure less than the critical angle for total internal reflection (see subsequent corresponding description given with respect to Fig. 2a). Thus, the thin-slab guided-wave structure comprising an array of apertures can be used as a pinhole-array beam-splitter such as described in commonly owned U.S. Provisional Application No. 60/442,982 (ZI-45), filed January 29, 2003, entitled "Interferometric Confocal Microscopy Incorporating Pinhole Array Beam-Splitter" and corresponding U.S. Patent Application No. [[_____]] 10/765,229, filed January 27, 2004 (ZI-45) and also entitled "Interferometric Confocal Microscopy Incorporating Pinhole Array Beam-Splitter" both of which are by Henry A. Hill, the contents of both U.S. applications are herein incorporated in their entirety by reference.

Please replace the first full paragraph on page 10 with the following amended paragraph:

An important property of the described embodiments is that thin-slab guided-wave structure **112** transmits beams that are incident on slab **130** from either dielectric cladding **132** or **134**. In addition, a portion of beams incident from dielectric cladding **132** on apertures associated with the array of beams **126** are radiated into slab **130** and a portion thereof is transmitted into dielectric cladding **134** for angles of incidence at interface of **130** and **134** less than the critical angle for total internal reflection. This property is important with respect to use of the thin-slab guided-wave structure having an array of apertures as a pinhole-array beam-splitter, such as described in U.S. Provisional Application No. 60/442,982 (ZI-45), filed January 28, 2003 and corresponding U.S. Patent Application No. [[_____]] 10/765,229, (ZI-45), filed

January 27, 2004, and entitled "Interferometric Confocal Microscopy Incorporating Pinhole Array Beam-Splitter," both of which are incorporated herein by reference.

Please replace the first full paragraph on page 17 with the following amended paragraph:

A second embodiment comprises a thin-slab guided-wave structure of the first embodiment and a low index of refraction layer to compensate for aberrations generated in a microscopy imaging system **10** when there is a mismatch between indices of refraction at a substrate-medium interface. The second embodiment is shown in Fig. **3** with a compensating layer **180 181** of low refractive index. Elements of the second embodiment that are the same as elements of the first embodiment are shown in Fig. **3** with the same element numbers. The description of the second embodiment is the same as corresponding portions of the description given for the first embodiment and as corresponding portions of the descriptions given in commonly owned U.S. Provisional Patent Application No. 60/444,707(ZI-44) entitled "Compensation for Effects of Mismatch in Indices of Refraction at a Substrate-Medium Interface in Confocal and Interferometric Confocal Microscopy" and U.S. Patent Application No. [[_____]] **10/771,785**, filed February 4, 2004 (ZI-44) and also entitled "Compensation for Effects of Mismatch in Indices of Refraction at a Substrate-Medium Interface in Confocal and Interferometric Confocal Microscopy" both of which are by Henry A. Hill. The contents of the two cited patent applications are herein incorporated in their entirety by reference.